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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,037	02/12/2002	Michael A. Mayor	0918.0078C	3051
27896	7590	07/12/2005	EXAMINER	
EDEL, SHAPIRO & FINNAN, LLC 1901 RESEARCH BOULEVARD SUITE 400 ROCKVILLE, MD 20850			KIM, KEVIN	
			ART UNIT	PAPER NUMBER
			2638	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,037

Applicant(s)

MAYOR ET AL.

Examiner

Kevin Y. Kim

Art Unit

2638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-18, 34-38 and 43-48 is/are allowed.
- 6) ☒ Claim(s) 1-11, 19-33 and 39-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/26/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11,19-33,39-42 are rejected under 35 U.S.C. 102(b) as being anticipated by

Ames (US 5,233,626).

Claims 1,19,39.

Ames discloses a method of combining signals transmitted from a plurality of transmitting devices to a receiving device in a communication system, comprising

(a) coordinating transmissions of the plurality of the transmitting communication devices such that a plurality of transmitted signals are respectively transmitted over the same communication channel by the plurality of transmitting communication devices substantially simultaneously, each of the transmitted signals including an information signal which is coherently combinable with corresponding information signals in others of the transmitted signals; col. 4, lines 3-5,

(b) receiving the transmitted signals at the receiving communication device such that respective arrival times of the transmitted signals are offset from one another as a function of respective positions of the transmitting communication devices; col. 4, lines 7-11,

(c) time aligning the transmitted signals to compensate for the respective arrival times of the transmitted signals; col.5, lines 57-64,

Art Unit: 2638

(d) combining the transmitted signals to form a combined signal including at least a combined information signal; col.7, lines 43-51, and

(e) detecting the combined signal to determine the presence of the transmitted signals. Col.7, lines 52-61.

Claims 2,20,24,25,26,40.

Ames further discloses (b) correlating the acquisition signal of transmitted signals received by the receiving communication device to a stored signal to estimate the arrival times of the transmitted signals; see 5, lines 25-50, and

combining information signals from at least some of the transmitted signals correlated in (b) to form the combined information signal.

Claims 3 and 6.

Ames further discloses acquisition signal in each of the transmitted signals is identical. See col. 4, lines 3-5.

Claims 4,21,41.

Ames further discloses phase rotating at least some of the transmitted signals correlated in (b) to adjust a relative timing of the transmitted signals to account for timing offsets among the respective arrival times of the transmitted signals. See col. 4, lines 65-66.

Claim 5.

Art Unit: 2638

The transmitted signals arrive at the receiving communication device within an acquisition time interval having a duration sufficiently short to permit combining of the transmitted signals. See col. 6, lines 1-11.

Claims 7,29.

Ames further discloses determining a channel impulse response from the serial probe. See col. 5, lines 57-64.

Claims 8,30.

Ames further discloses combining the transmitted signals by phase matching and adding the magnitude of the transmitted signals. See col. 7, lines 43-51

Claims 9,31.

Ames further discloses that the transmitted signals are combined using an equalizer. See col. 4, lines 62-65.

Claims 10,22,32,42.

Ames describes that at least one of the transmitting devices is a mobile communication device. See col. 4, lines 2-3.

Claim 11,23,33.

Ames does not limit the receiver to either fixed or mobile station, indicating that both modes are included.

Claim 27.

Art Unit: 2638

Ames describes a digital matched filter configured to generate a matched filter signal based on the transmitted signals received by the receiving communication device. See col. 5, lines 25-26.

Claim 28.

Ames describes a plurality of tapped delay lines configured to modify the phase and amplitude of the transmitted signals. See delays in Fig. 2 (26-1, ..., 26-n).

Allowable Subject Matter

3. Claims 12-18, 34-38, 43-48 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Venderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/s/ Kevin Y. Kim

KEVIN KIM
PATENT EXAMINER